

REMARKS/ARGUMENTS

Reconsideration of the application is requested.

Claims 1-16 remain in the application. Claims 1-16 have been amended.

In item 2 on page 2 of the above-identified Office action, claims 1-2, 4, and 7-10 have been provisionally rejected as being unpatentable over claims 1-2, 4, and 7-10 of copending Application No. 10/200,901 under the judicially created doctrine of obviousness-type double patenting.

The difference between the invention of the instant application and the application No. 10/200,901 is that claim 1 of the instant application recites that the scale is a structured material characteristic or a structured surface on a material. A special embodiment of the material characteristic is shown in Fig. 8 of the instant application.

A scale is formed of a base body (carrier) and additional material specifically formed thereon or therein. It is also possible to take away the base body material by structuring in order to produce the desired measuring track. In the invention of the instant application, the material is neither

given to nor taken away from the base body (carrier) in order to produce the structure of the measuring track. Rather, the surface structure itself or its influential material characteristic (without depositing on or in nor taking away material) is used for producing the desired measuring track. Therefore, moving bodies with such suitable material can be measured directly in conventional manner during movement without additional scales. Naturally, the material characteristics according to the invention of the instant application can also be applied to separate scales. This is described in detail on pages 9, 10, 18 (Fig. 8), and 19 of the specification of the instant application.

Therefore, claim 1 of the instant application is believed to be patentable over the application No. 10/200,901. Since, claims 2, 4, and 7-10 are dependent on claim 1, they are believed to be patentable as well.

In item 4 on page 3 of the Office action, claims 1-7, 9-14, and 16 have been rejected as being anticipated by Masreliez et al. (U.S. Patent No. 5,894,678) under 35 U.S.C. § 102(b).

In item 6 on page 4 of the above-mentioned Office action, claim 8 has been rejected as being unpatentable over Masreliez

et al. in view of Rieder et al. (US Pat. No. 4,996,778) under 35 U.S.C. § 103(a).

In item 7 on page 4 of the above-mentioned Office action, claim 15 has been rejected as being unpatentable over Masreliez et al. in view of Heitmann et al. (US Pat. No. 4,612,267) under 35 U.S.C. § 103(a).

As will be explained below, it is believed that the claims were patentable over the cited art in their original form and the claims have, therefore, not been amended to overcome the references.

Before discussing the prior art in detail, it is believed that a brief review of the invention as claimed, would be helpful.

Claim 1 calls for, inter alia:

a scale with a measurement track for generating absolute values recorded by an appropriate scanning head, said scale with said measurement track being a structured material characteristic or a structured surface on a material, said scale including at least two segments identically created for the generation of absolute values, and at least one suitable track being provided on said scale for determining the absolute value of the particular segment reached by a further sensor arrangement.

Masreliez et al. disclose a magnetic absolute measure system, which is almost identical to the absolute measure system as

described in DE 195 05 176 A1 (see pages 1-2 of the specification of the instant application) with regard to the functional principle.

The invention of the instant application differs from this kind of absolute measure system in that the scale (1) includes at least two identically formed segments (1a to 1c) for determining the absolute value within each segment by measurement tracks (2, 3); at least one suitable track (2, 3, 4) in each segment can be used to determine the absolute value of the segment through an additional sensor arrangement; and a switching device uses the absolute value of the segments and the determined absolute value within the segment to provide the total absolute value for further processing.

The measure system of Masreliez et al. does not have at least two segments, rather it has only one segment, namely the entire length of the scale. The incremental track 143 of Masreliez et al. may be compared with the measurement track (2, 3) of the invention of the instant application, but cannot be considered segments (1a to 1c) in the sense of the invention of the instant application because the incremental divisions 143 are used to measure the absolute value of the entire length of the scale. The incremental tracks 142, 143 of Masreliez et al., just like the measurement tracks (2, 3)

of the invention of the instant application, are both used to measure the absolute value (with different resolutions). However, in Masreliez et al. the incremental tracks 142, 143 are used to measure the absolute values in the entire measuring length of the scale, whereas in the invention of the instant application the measurement tracks (2, 3) are used to measure the absolute values within each segment (1a to 1c).

Clearly, Masreliez et al. do not show "a scale with a measurement track for generating absolute values recorded by an appropriate scanning head, said scale with said measurement track being a structured material characteristic or a structured surface on a material, said scale including at least two segments identically created for the generation of absolute values, and at least one suitable track being provided on said scale for determining the absolute value of the particular segment reached by a further sensor arrangement," as recited in claim 1 of the instant application.

Claim 1 is, therefore, believed to be patentable over Masreliez et al. and since all of the dependent claims are ultimately dependent on claim 1, they are believed to be patentable as well.

The following is a brief discussion of other documents cited by the Examiner in the Office action:

Heitmann et al. (US Pat. No. 4,612,267):

- A method for the production of structures through polymerization/depolymerization over ultra sound protected from resist layers is disclosed. Washing out structures are produced over chemical development processes, which apply in the production process of integrated circuits. Thus, a person skilled in the art would not use this method to measuring system as alleged by the Examiner.

Spencer (US Pat. No. 2,861,345):

- The displacement measuring device has nothing to do with the invention of the instant application.

Aoki et al. (US Pat. No. 4,150,282):

- The electronic digital scale has nothing to do with the invention of the instant application.

Nelle (US Pat. No. 4,479,716):

- The incremental measuring instrument has nothing to do with the invention of the instant application.

Minami et al. (US pat. No. 4,529,964):

- An encoder with a special "measuring device" with "code plate" and "plurality of sensor elements" is described, which makes an accurate interpolation possible.
- This has nothing to do with the invention of the instant application.

Cheng (US pat. No. 5,471,761):

- This power driven tape measure has nothing to do with the invention of the instant application.

Andermo et al. (US pat. No. 5,901,458):

- This electronic caliper has nothing to do with the invention of the instant application.

Nelle et al. (US Pat. No. 6,163,970):

- This linear encoder has a scale formed together from individual modules, which provides a scale referring to the measuring length. This has nothing to do with the invention of the instant application.

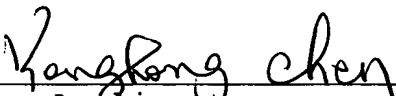
In view of the foregoing, reconsideration and allowance of claims 1-16 are solicited.

In the event the Examiner should still find any of the claims to be unpatentable, counsel would appreciate a telephone call so that, if possible, patentable language can be worked out.

If an extension of time for this paper is required, petition for extension is herewith made. Please charge any fees which might be due with respect to 37 CFR Sections 1.16 and 1.17 to the Deposit Account of Lerner and Greenberg, P.A., No. 12-1099.

Respectfully submitted,

Yonghong Chen
Reg. No. 56,150



For Applicant

YC

December 10, 2004

Lerner and Greenberg, P.A.
Post Office Box 2480
Hollywood, FL 33022-2480
Tel: (954) 925-1100
Fax: (954) 925-1101